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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,745	09/28/2001	Alan Wightman	DEXNON/095/PC/US	8639
2543	7590	07/23/2004	EXAMINER	
ALIX YALE & RISTAS LLP 750 MAIN STREET SUITE 1400 HARTFORD, CT 06103			BOYD, JENNIFER A	
		ART UNIT	PAPER NUMBER	
			1771	

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/869,745	WIGHTMAN ET AL. 
	Examiner	Art Unit Jennifer A Boyd 1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 07 April 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 22 and 24-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 22 and 24-44 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Response to Amendment

1. The Applicant's Amendments and Remarks, filed April 7, 2004, has been entered and carefully considered. Claims 22, 29 and 34 are amended, claim 23 is cancelled and claims 22 and 24 – 44 are pending. The invention as currently claimed is not found to be patentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. Claims 22 – 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The dependent claims 23 – 28, 30 – 33 and 35 - 36 are rejected as being dependent upon a rejected base claim. The details of the rejection can be found in paragraph 3 of the previous Office Action dated October 3, 2003.

Claim Rejections - 35 USC § 103

4. Claims 22 and 24 – 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rose (WO 95/10190) in view of Ito et al. (US 5,705,214). It should be noted that the rejection has only been altered due to the incorporation of the limitation previously in claim 23 to claims 22, 29 and 34.

Rose is directed to a porous bonded fibrous sheet material particularly suitable for conversion into food casings (Abstract).

Rose is directed to a porous bonded fibrous sheet material particularly suitable for conversion into food casings (Abstract).

As to claims 22 and 29, Rose teaches a porous substrate such as a paper comprising natural cellulosic fibers mixed with synthetic fibers (page 4, paragraph 3).

As to claim 24, Rose teaches that that paper is ideally prepared from long fibers such as abaca (page 4, paragraph 3).

As to claims 25 and 30, Rose teaches that cellulosic fibers are present in the porous substrate (page 4, paragraph 3). It should be noted that Rose does not specifically teach the use of wood pulp fibers as a cellulosic fiber in the substrate. However, the Applicant only requires that the wood pulp component is present in the amount of ***up to 50%***, therefore, the presence of 0% wood pulp which is implied by Rose would meet the Applicant's limitations.

As to claims 28 and 31, Rose teaches that the porous substrate is wet laid (page 4, paragraph 3).

As to claim 32, Rose teaches that the porous substrate is treated with a coating composition which is an admixture of polymer latex and a wet strength resin (page 4, paragraph 4).

As to claim 33, Rose teaches that the porous substrate is treated with viscose during the final conversion of the precursor material to form the food casing (page 4, paragraph 33). It should be noted that it has been held that the recitation that an element is "adapted" to perform a

function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

As to claim 34, Rose teaches a porous substrate such as a paper comprising natural cellulosic fibers mixed with synthetic fibers (page 4, paragraph 3). Rose teaches that the porous substrate is treated with a coating composition which is an admixture of polymer latex and a wet strength resin (page 4, paragraph 4) and viscose during the final conversion of the precursor material to form the food casing (page 4, paragraph 33).

As to claim 35, Rose teaches that the porous substrate may be impregnated with the resin and viscose in one step (page 8, paragraph 2). Rose teaches that the substrate absorbs the viscose treatment during the final conversion of the precursor material to form the food casing (page 4, paragraph 33).

As to claim 36, Rose teaches that the porous substrate is dried using steam heated drying cylinders (page 7, paragraph 6).

As to claims 37 and 42, Rose teaches a porous substrate such as a paper comprising natural cellulosic fibers mixed with synthetic fibers (page 4, paragraph 3). Rose teaches that the porous substrate is treated with a coating composition which is an admixture of polymer latex and a wet strength resin (page 4, paragraph 4) and viscose during the final conversion of the precursor material to form the food casing (page 4, paragraph 33).

As to claim 38, Rose teaches that that paper is ideally prepared from long fibers such as abaca (page 4, paragraph 3).

As to claim 39, Rose teaches that cellulosic fibers are present in the porous substrate (page 4, paragraph 3). It should be noted that Rose does not specifically teach the use of wood

pulp fibers as a cellulosic fiber in the substrate. However, the Applicant only requires that the wood pulp component is present in the amount of *up to 50%*, therefore, the presence of 0% wood pulp which is implied by Rose would meet the Applicant's limitations.

As to claim 43, Rose teaches that the porous substrate is wet laid (page 4, paragraph 3).

As to claim 44, Rose teaches that the porous substrate is dried using steam heated drying cylinders (page 7, paragraph 6).

As to claims 22, 29, 34, 37 and 42, Rose teaches the claimed invention above, however, fails to teach that the synthetic fibers in the porous substrate are selected from polyester, polyester copolymer, polyamide, polyamide copolymer, polyolefin and polyolefin copolymer or a mixture thereof.

Ito et al. is directed to casings fabricated from a food component transfer sheet (Abstract). Ito teaches a base sheet made from a paper or nonwoven fabric comprising natural fibers and synthetic fibers such as polyester, nylon or other plastic fibers (column 3, lines 14 – 24).

It would have been obvious and necessary for one of ordinary skill in the art practicing the invention of Rose to provide the details of the synthetic fiber. As polyester and nylon (polyamide) are commonly employed synthetic fibers which provide reinforcement and heat stability to a casing material, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use polyester or nylon as the synthetic fiber as suggested by Ito in the invention of Rose, motivated by the expectation of successfully practicing the invention of Rose.

As to claims 22, 29 and 34, although Rose in view of Ito does not explicitly teach the claimed lower cross direction wet expansion compared to a similar web material comprising only the same cellulosic fibers, it is reasonable to presume that the lower cross direction wet expansion value is inherent to Rose. Support for said presumption is found in the use of like materials (i.e. a porous substrate made of a paper comprising cellulosic and synthetic fibers) which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of a lower cross direction wet expansion compared to a similar web material comprising only the same cellulosic fibers would obviously have been present once the Rose in view of Ito product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

As to claims 26, 27, 40 and 41, Rose in view of Ito discloses the claimed invention except for that the porous substrate includes synthetic fibers in the amount of 0.5 to 20% by weight as required by claim 26 and the content of synthetic fibers in the porous substrate is from 3 to 9% by weight of the total weight as required by claim 27, the porous substrate includes synthetic fibers in the amount of 0.5 to 20% by weight as required by claim 40 and the content of synthetic fibers in the porous substrate is from 3 to 9% by weight of the total weight as required by claim 41. It should be noted that the amount of cellulosic and synthetic fibers in the substrate are result effective variables; for example, as the amount of cellulosic fibers increases, the substrate will become more paper-like. As the amount of synthetic fibers increases, the substrate will become more heat stable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to Rose in view of Ito, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*,

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617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the level of cellulosic and synthetic fibers to create a substrate with properly balanced elasticity, thermal stability and strength.

Response to Arguments

5. Applicant's arguments filed April 7, 2004 have been fully considered but they are not persuasive.

6. In response to Applicant's arguments that the language of "wherein the web material exhibits lower cross direction wet expansion than a similar web material comprising only the same cellulosic fibers" is not indefinite, the Examiner respectfully argues the contrary. In claims 22, 29 and 34, the Applicant only claims a nonwoven web comprising cellulosic fibers and synthetic fibers, but compares the cross direction wet expansion value to a web comprising only cellulosic fibers. The Office is not equipped to do physical testing of the products in the invention and of the prior art, therefore, it is highly suggested that the Applicant provide a quantitative amount for the cross direction wet expansion rather than comparing it qualitatively.

7. In response to Applicant's Argument that Rose does not anticipate or render the invention as obvious, the Examiner respectfully argues the contrary. As to newly amended claim 22, Rose teaches a wet laid fibrous substrate comprising natural cellulosic fibers and, if desired, partially of synthetic fibers (page 4, paragraph 3). Rose does not disclose the specific types of synthetic fibers that may be incorporated into the substrate, therefore the Examiner used the teaching from Ito to incorporate synthetic fibers such as polyamides or polyesters to increase the stability and strength of the substrate in food casing applications. The Examiner acknowledges that the cross

direction stretch of the Rose nonwoven material is controlled by impregnating or applying liquid polymer dispersions. However, it should be noted that Rose does suggest the incorporation of synthetic fibers in the cellulosic fiber substrate and it is the position of the Examiner that the incorporation of at least a small portion of synthetic fibers would additionally alter the cross direction wet expansion absent any evidence to the contrary. Additionally, the claim language of the Applicant does not exclude the use of impregnation to lower the cross direction wet expansion. Since the substrate of Rose in combination with Ito reads on the present claim limitations, it is asserted that the claimed property of cross direction wet expansion is lower than a similar web comprising only cellulosic fibers must be inherent to the prior art product. If said property is not inherent, it is asserted that Applicant's claim must be incomplete. In other words, if Applicant's asserts a lack of inherency in Rose in combination with Ito, then Applicant's claimed invention is missing an element that is critical to the invention, which would patentably distinguish it from the known prior art. Does use of a liquid polymer dispersion to control cross direction wet expansion result in a different wet expansion value when compared to the product of the present invention? If so, it is suggested to the Applicant to provide a numerical value of cross direction wet expansion to differentiate the material effect of impregnating or applying liquid polymer dispersion versus adding synthetic fibers to control the cross directional wet expansion.

8. In response to Applicant's arguments that claims 25, 30 and 39 imply the presence of wood pulp, the Examiner respectfully argues the contrary. The claims require that the wood pulp fibers are present "in an amount of up to 50% by weight of the total weight of the cellulosic and synthetic fibers". It should be noted that no lower bound has been stated in the claim. Therefore,

the phrase “of up to 50%” requires only that any numerical value from 0 to 50 would meet the Applicant’s requirements. If the Applicant incorporated a lower bound, then the claim would positively recite that some level of wood pulp fibers greater than 0 must be present.

9. In response to Applicant’s arguments regarding the use of Boesch case law, the Examiner respectfully argues the contrary. It should be noted that Applicant’s claims do not suggest that the concentration of synthetic fibers directly effects the cross direction wet expansion. Claim 22 states that the cross direction wet expansion of the substrate of the invention is lower than a similar web comprising only the same cellulosic fibers. It should be noted that claim 22 does not exclude the use of impregnation of a liquid polymer dispersion to control the cross direction wet expansion. Additionally, the Examiner agrees that Rose does not suggest the amount of synthetic fibers used in the substrate, therefore, it would have been obvious to one of ordinary skill in the art to optimize the amount of synthetic fibers to create a stable substrate. Rose does not teach away from the incorporation of synthetic fibers; Rose simply states that papers containing natural cellulosic fibers such as abaca would be suitable. Even if the incorporation of synthetic fibers were a non-preferred embodiment, it would be improper to ignore the disclosure of the incorporation of synthetic fibers.

10. In response to Applicant’s arguments that the web of Rose requires that the constituent fibers exhibit uniform formation and absorbency characteristics, the Examiner believes that such a requirement would not eliminate the incorporation of synthetic fibers. Rose suggests that the incorporation of synthetic fibers are a suitable embodiment (page 4, paragraph 3). Additionally, Rose does not teach that a certain level of absorbency is required (i.e., higher absorbency level would imply a higher concentration of cellulosic fibers) only that the absorbency is relatively

uniform throughout the substrate. Therefore, it is implied that the synthetic fibers would be uniformly dispersed within the substrate.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jennifer Boyd
July 19, 2004


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